

ABSTRACT

A delay device 102 sends reception signals to a subtraction device 113 after delaying it by a predetermined time. Matched filters 103-1 ~ 103-N perform despread operation of the reception signals. 5 RAKE-combining devices 104-1 ~ 104-N perform RAKE-combining operation of the signals after the despread operation. Discrimination devices 105-1 ~ 105-N perform hard decision of the signals after the RAKE-combining operation. A decision value buffer 107 10 stores the signals after the hard decision. Likelihood calculation devices 106-1 ~ 106-N calculate likelihood of all the symbols. A likelihood buffer 108 stores calculated likelihood. A controlling part 110 controls a switch 109. A ranking decision device 111 decides a 15 ranking based on the likelihood. A re-spread device 112 performs re-spread operation of a symbol with the highest likelihood ranking. And a subtraction device 113 subtracts the re-spread result from the delayed 20 reception signals.